

CLAIMS

Having thus described the preferred embodiments, the invention is now claimed to be:

- 5 1. A computer-based information handling system, comprising:
 a processor for executing an application program;
 a video display device including a display screen for displaying a
word in a first language for audible playback on the display screen;
 a pointing device for controlling a cursor movable on the display
10 screen of the video display device in response to a user operating the pointing
device;
 an audio output device;
 a memory for storing a digital recording of said word for audible
playback; and
15 a rollover region associated with said word for playback and
defined at a position on the display screen overlapping a position of said word for
playback on the display screen and configured to cause audible playback of said
word in said first language when at least a portion of the cursor is over the
rollover region.
20 2. The system of claim 1, wherein the rollover region is not
visible to the user.
 3. The system of claim 1, wherein the rollover region is
25 substantially contiguous with a set of pixels occupied by said word on the display
screen.
 4. The system of claim 1, further comprising:
 an on-screen object selectable with said pointing device and
30 associated with said word displayed on said display screen;

said on-screen object configured to trigger audio playback of said displayed word in a second language different from the first language.

5 5. The system of claim 4, wherein the second language is a primary language of the user.

10 6. The system of claim 1, wherein said displayed word is part of a multiword phrase or sentence in said first language appearing on said display screen.

10 7. The system of claim 6, wherein each word of said multiword phrase or sentence is individually selectable with the pointing device.

15 8. The system of claim 6, further comprising one or both of:
15 a first on-screen object selectable with said pointing device and associated with said multiword phrase or sentence displayed on said display screen, said first on-screen object configured to trigger audio playback of said multiword phrase or sentence in said first language; and

20 a second on-screen object selectable with said pointing device and associated with said multiword phrase or sentence displayed on said display screen, said first on-screen object configured to trigger audio playback of said multiword phrase or sentence in said second language.

25 9. The system of claim 8, wherein each word of said multiword phrase or sentence is individually selectable with said pointing device.

10 10. The system of claim 9, wherein all words of said multiword phrase or sentence are contained in a single digital audio file.

30 11. The system of claim 10, wherein said digital audio file is an MP3 file.

12. The system of claim 1, further comprising:

a plurality of displayed words for playback appearing on said display screen, said plurality of displayed words appearing as individual words, multiword phrases or sentences, or a combination thereof;

a distinct rollover region associated with each of said words, each distinct rollover region defined at a position on the display screen overlapping a position on the display screen of said word with which the rollover region is associated and configured to cause audible playback of said word in said first language when at least a portion of the cursor is over the rollover region.

13. The system of claim 12, wherein audible playback of a word is suppressed when at least a portion of the cursor moves over the rollover region during a time in which said audio output device is already causing audible playback.

14. The system of claim 1, further comprising an on-screen visual cue which appears during audible playback.

15. The system of claim 1, wherein the pointing device is a transparent touch screen overlaying said display screen.

16. The system of claim 1, wherein said rollover region is selected from:

a region defined by a rectangular box equal in size to and enclosing said word; and

a region is defined by a rectangular box with top and side boundaries that are aligned with the top and sides of said word and a bottom boundary that extends a predetermined number of pixels below the bottom of said word.

17. In a computer-based information handling system having a video display, an audio output device for audio output of prerecorded sounds, a pointing device for positioning a cursor on the video display, a method comprising the computer-implemented steps of:

5 providing a background image viewable on the video display, the background image including a word in a first language;

 prerecording a digital sound recording of said word being spoken in said first language;

 associating a designated hot region on the video display for
10 triggering audio output of the recording of said word in the first language, said hot region overlapping said word on the video display;

 positioning at least a portion of the cursor over the hot region in response to a user using the pointing device; and

 causing the audio output device to audibly output the recording of
15 said word in the first language, the audio output being caused by the cursor being positioned over the hot region.

18. A computer-readable medium whose contents cause a computer-based information handling system to perform method steps for audio
20 playback of a word appearing on a display device of said information handling system, said method steps comprising:

 providing a background image viewable on the display device, the background image including a word in a first language;

 prerecording a digital sound recording of said word being spoken in
25 said first language;

 associating a designated hot region on the display device for triggering audio output of the recording of said word in the first language, said hot region overlapping said word on the display device;

 positioning at least a portion of the cursor over the hot region in
30 response to a user using a pointing device for causing movement of a cursor on the display device; and

causing the audio output device to audibly output the recording of said word in the first language, the audio output being caused by the cursor being positioned over the hot region.

- 5 19. A language instruction system, comprising:
 a processor for executing an application program;
 a video display device including a display screen for displaying a
word in a first language for audible playback on said display screen, said word
appearing individually or as a part of a multiword phrase or sentence;
10 a pointing device for controlling a cursor movable on the display
screen of the video display device in response to a user operating the pointing
device;
 an audio output device;
 a memory for storing a digital recording of said word for audible
15 playback;
 a rollover region associated with said word for playback and
defined at a position on the display screen overlapping a position of said word for
playback on the display screen and configured to cause audible playback of said
word in said first language when at least a portion of the cursor is over the
20 rollover region;
 a first on-screen object selectable with said pointing device and
associated with said multiword phrase or sentence displayed on said display
screen, said first on-screen object configured to trigger audio playback of said
multiword phrase or sentence in said first language; and
25 if said word is a part of a multiword phrase or sentence, a second
on-screen object selectable with said pointing device and associated with said
multiword phrase or sentence displayed on said display screen, said first on-
screen object configured to trigger audio playback of said multiword phrase or
sentence in a second language.

20. A method for developing a language instruction system, comprising:

designing a spoken words interface comprising a background image and text of one or more words for audible playback;

5 creating a digital image representation of the background;

creating a digital sound recording of said one or more words for audible playback;

for each of said one or more words, creating a button on said spoken words interface and associating at least a portion of said imported audio file with each button so as to cause audible playback of the at least a portion of
10 said imported audio file in response to user input comprising positioning at least a portion of an on-screen cursor over the button; and

placing each button on the spoken words interface at an on-screen location which at least partially overlies an on-screen location of an associated
15 one of said one or more words.

21. The method of claim 20, further comprising:

creating a Flash document having a document library and importing said background image and said digital sound recording into said the document library, wherein said background image is placed on a first layer of said
20 document and said digital sound recording on a second layer of said document;

creating a Flash format (SWF) from the Flash document; and

embedding the SWF file as an object in a markup language document.
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22. The method of claim 21, further comprising:

prior to creating the SWF file, testing the Flash document.

23. The method of claim 22, wherein the markup language document is an HTML page, the method further comprising:
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testing the HTML file on one or more targeted platforms; and

publishing the HTML page on the web.

24. The method of claim 20, wherein the background is selected from one or more of scanned photographs, digital photographs, scanned artwork,
5 and digital artwork, or any combination thereof.

25. The method of claim 20, wherein the background has a thematic relationship to the text and/or the text and background combine to tell a story.

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26. The method of claim 20, further comprising:

creating a set of one or more user selectable on-screen objects for triggering bilingual playback of said one or more words;

15 associating each of said on-screen objects with a selected one or group of said one or more words and placing each of said one or more on-screen objects on the spoken words interface proximate the selected one or group of said one or more words; and

optionally, creating an action viewable on a display screen by a user and associating said action with said one or more on-screen objects.

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27. The method of claim 20, wherein said one or more words includes a multiword phrase or sentence, said method further comprising:

creating a digital sound recording of said multiword phrase or sentence being spoken in a fluent manner;

25 creating an on-screen object for triggering playback of said digital sound recording of said multiword phrase or sentence;

associating said on-screen object with said multiword phrase or sentence and placing the object on the spoken words interface proximate said multiword phrase or sentence; and

30 optionally, creating an action viewable on a display screen by a user and associating said action with on-screen object.

28. The method claim 20, wherein the button allows transvisualization of the word.

5 29. The method of claim 28, wherein the button is transparent.

30. A markup language document stored on a computer-readable medium to provide interactive language instruction, comprising:

10 a background comprising a background image viewable on the video display, the background image including a word in a first language;

 a prerecorded digital sound recording of said word being spoken in said first language;

15 a rollover region on the video display for triggering audio output of the recording of said word in the first language in response to a user moving at least a portion of an on-screen cursor over said rollover region, said rollover region overlapping said word on the video display.